

ABSTRACT OF THE DISCLOSURE

An ultra violet light sterilizing apparatus utilizing a silicon carbide (SiC) photodiode sensor is described. The ultraviolet light fluid sterilization apparatus includes a fluid chamber, at least one ultraviolet light source configured to emit ultraviolet light into the fluid chamber, and at least one ultraviolet light sensor that includes a silicon carbide photodiode. Each UV light sensor includes a sealed outer housing having an optically transparent window. A silicon carbide photodiode is located inside the housing adjacent the transparent window. Each UV light sensor also includes a signal amplification unit that includes an amplifier mounted on a printed circuit board located inside the housing. The UV sterilization apparatus also includes a controller configured to receive, as input, a signal from each ultraviolet light sensor. The controller compares the input signal to a desired UV light intensity and outputs a control signal to each ultraviolet light source to adjust the intensity of the ultraviolet light emitted from each ultraviolet light source.